

FIG. 1

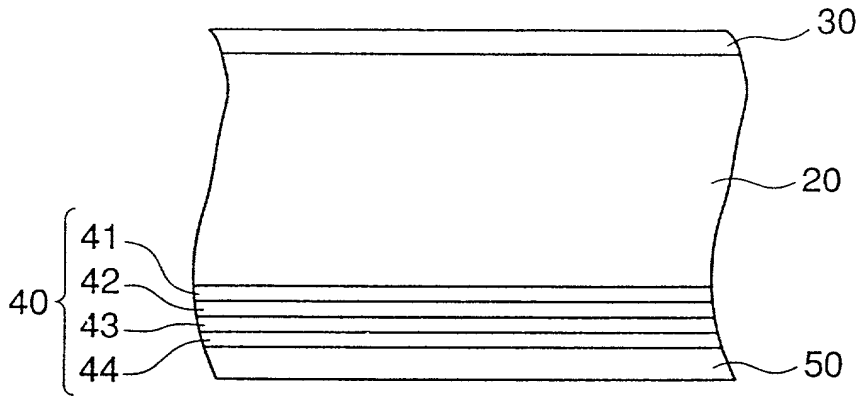


FIG. 2 (a)

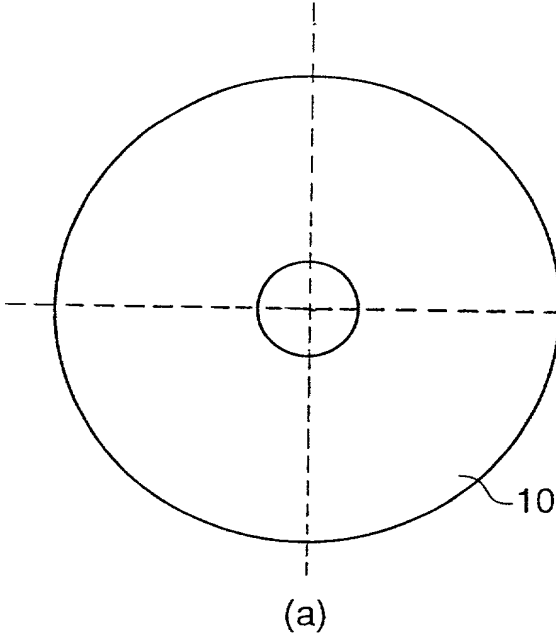


FIG. 2 (b)

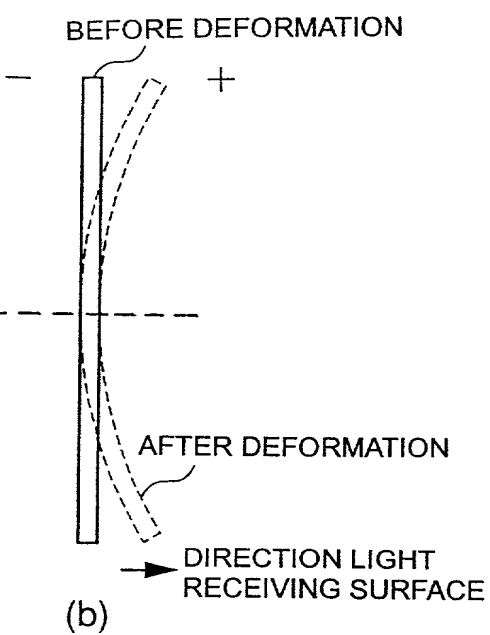


FIG. 3

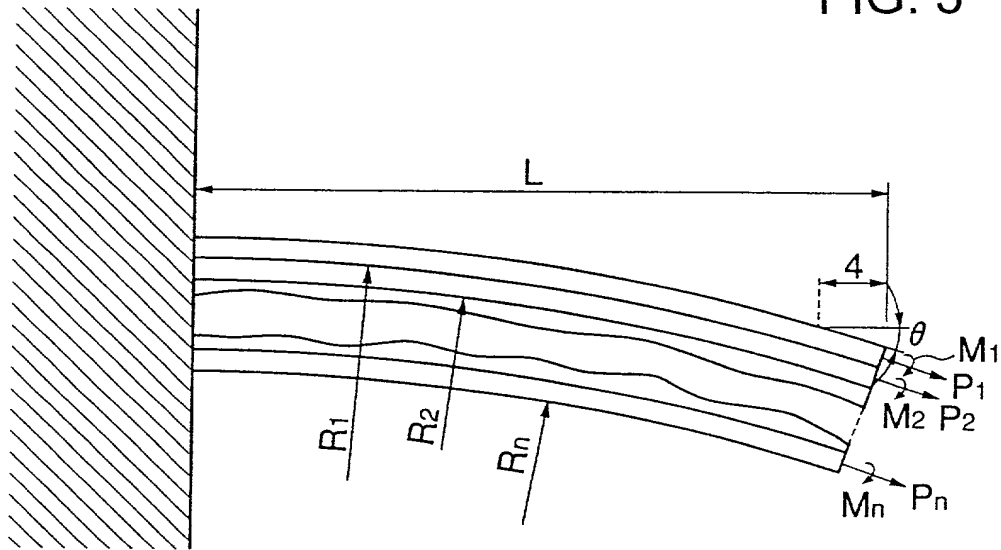


FIG. 4 PRIOR ART

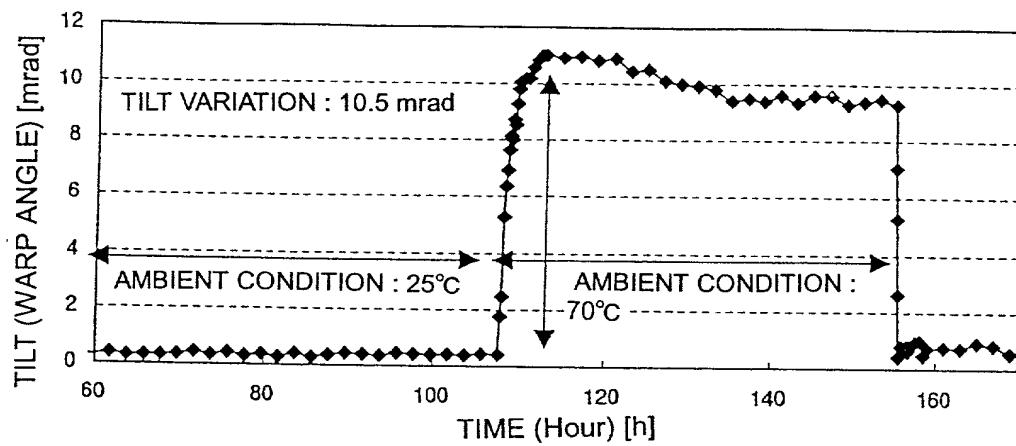


FIG. 5

EXAMPLE 1

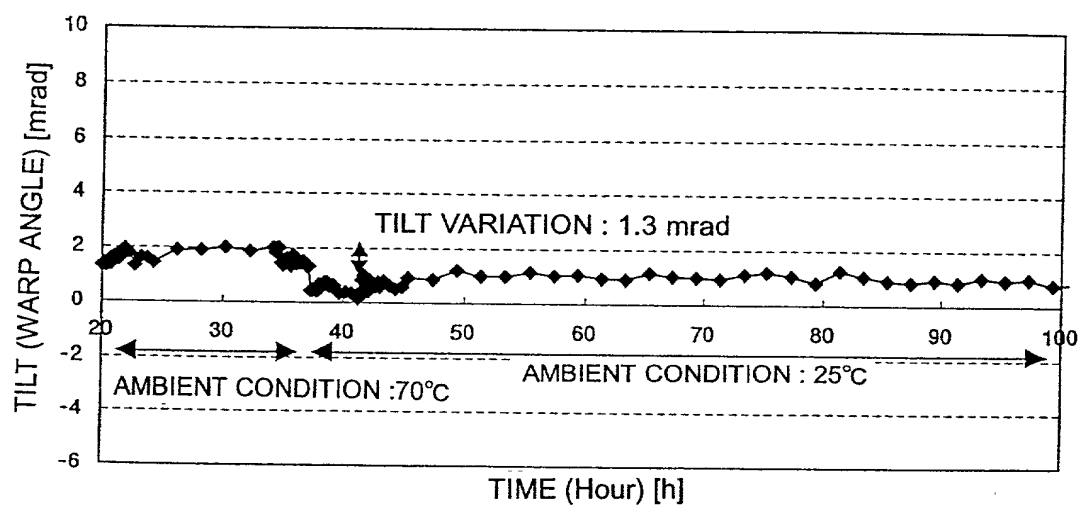


FIG. 6

EXAMPLE 2

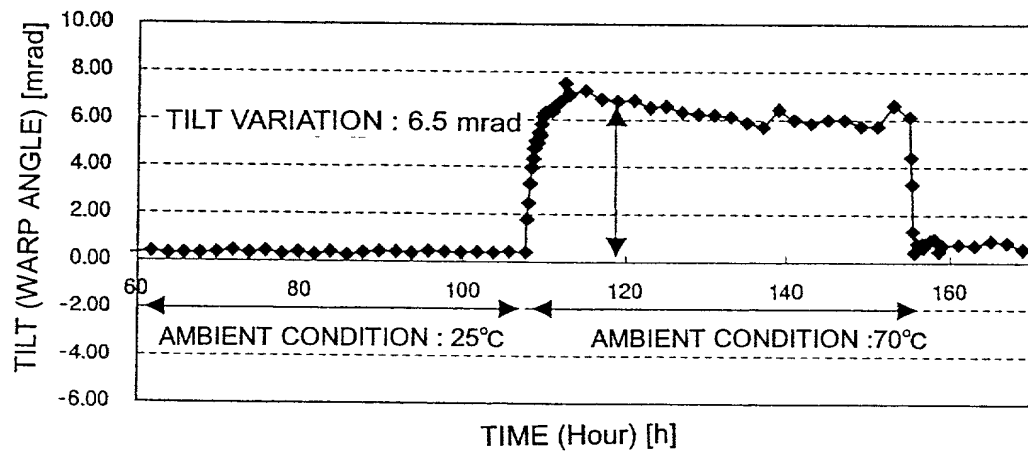


FIG. 7

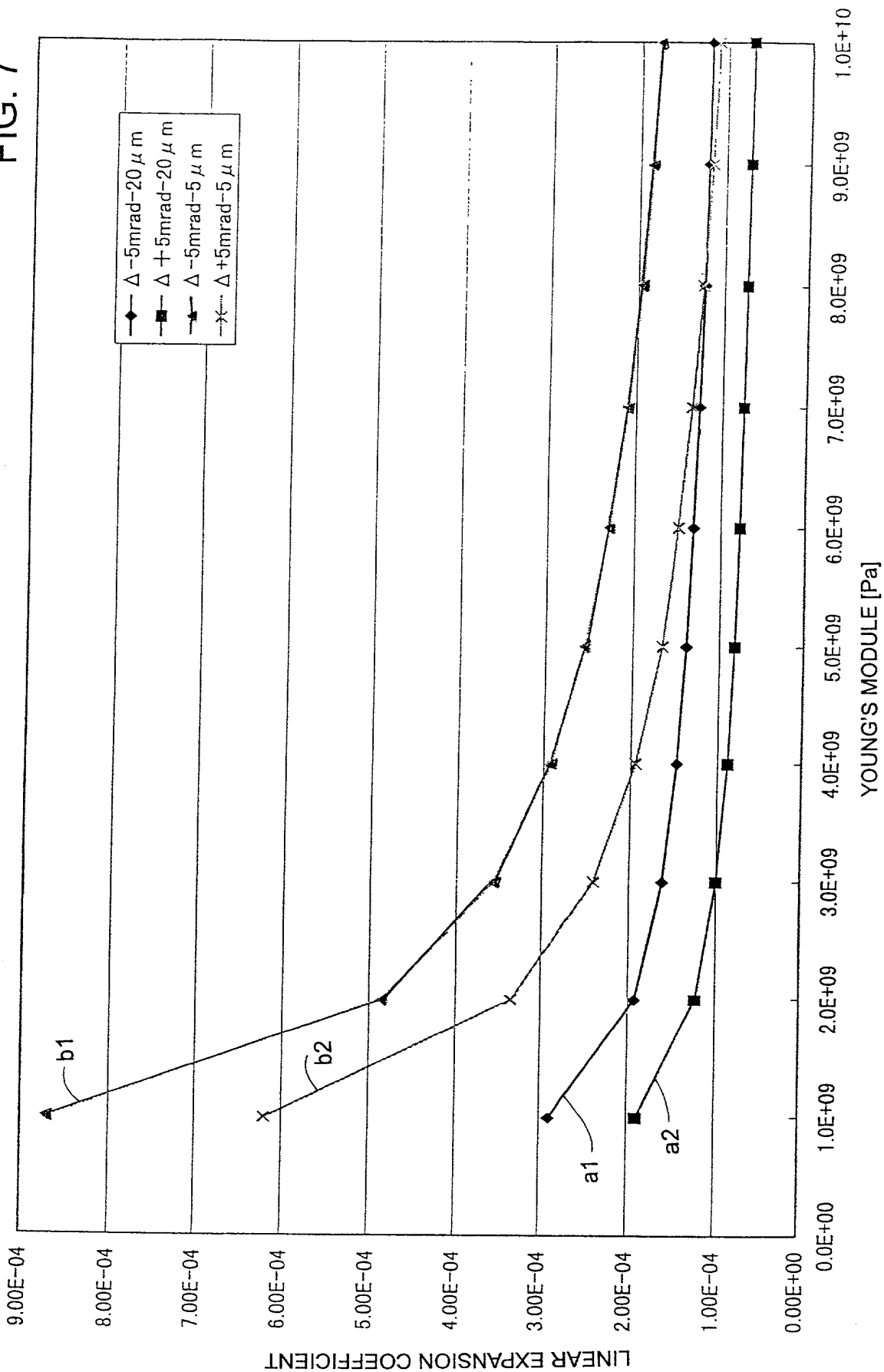


FIG. 8 (a)  
PRIOR ART

FIG. 8 (b)  
PRIOR ART

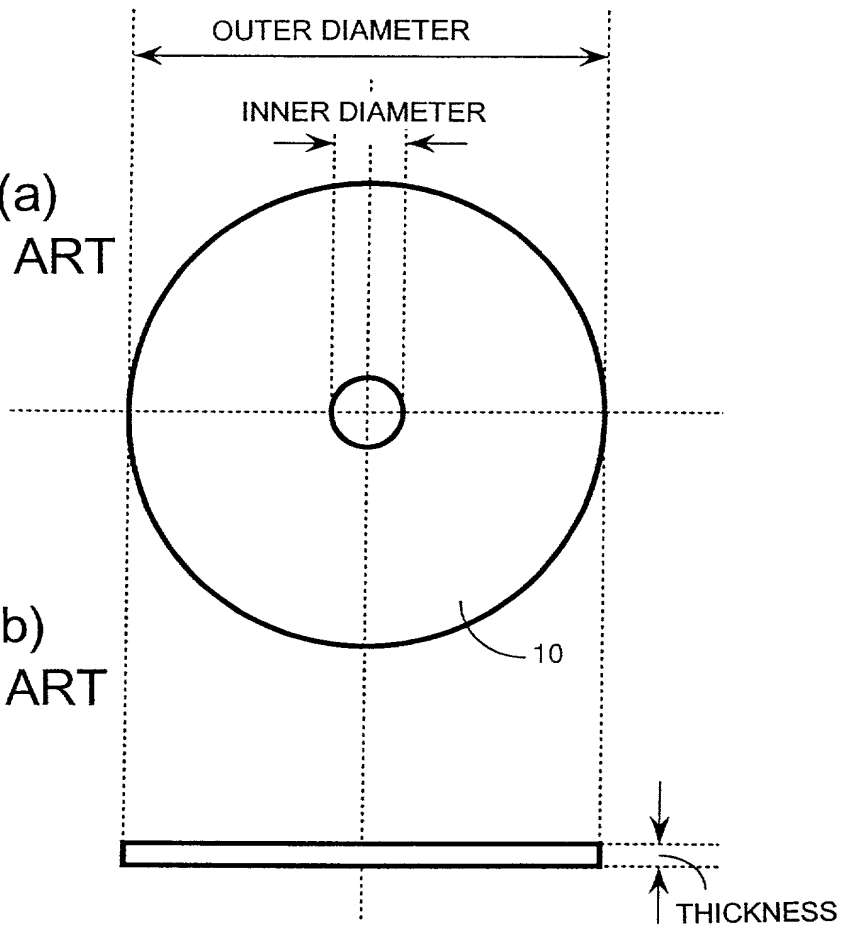


FIG. 9 PRIOR ART

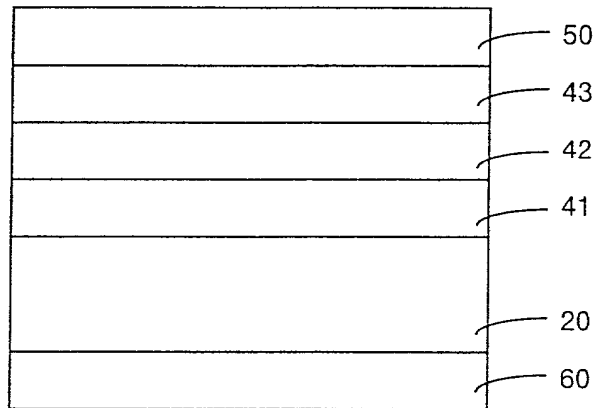


FIG. 10 PRIOR ART

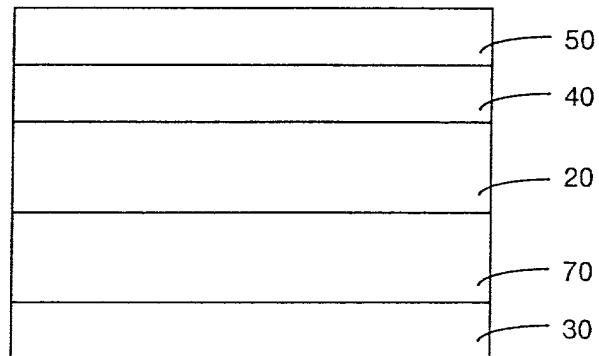




FIG. 11

|                             |                   |           |                            |  |
|-----------------------------|-------------------|-----------|----------------------------|--|
| EXAMPLE 1                   | MATERIAL          | THICKNESS | YOUNG'S<br>MODULUS<br>(Pa) | LINEAR<br>EXPANSION<br>COEFFICIENT<br>(1/°C) |
| TRANSPARENT<br>SUBSTRATE 20 | POLYCARBONATE     | 0.5mm     | 2.41E+09                   | 6.00E−05                                     |
| THIN FILM<br>LAYER 40       | ALUMINUM NITRIDE  | 65nm      | 3.43E+11                   | 5.60E−06                                     |
| PROTECTIVE<br>FILM 50       | UV CURING RESIN 1 | 16μm      | 5.40E+09                   | 9.50E−05                                     |

FIG. 12 PRIOR ART

|                             |                   |           |                            |  |
|-----------------------------|-------------------|-----------|----------------------------|--|
| COMPARATIVE<br>EXAMPLE 1    | MATERIAL          | THICKNESS | YOUNG'S<br>MODULUS<br>(Pa) | LINEAR<br>EXPANSION<br>COEFFICIENT<br>(1/°C) |
| TRANSPARENT<br>SUBSTRATE 20 | POLYCARBONATE     | 0.5mm     | 2.41E+09                   | 6.00E−05                                     |
| THIN FILM<br>LAYER 40       | ALUMINUM NITRIDE  | 65nm      | 3.43E+11                   | 5.60E−06                                     |
| PROTECTIVE<br>FILM 50       | UV CURING RESIN 2 | 16μm      | 5.40E+09                   | 5.62E−05                                     |

FIG. 13

|                             |                   |           |                            |  |
|-----------------------------|-------------------|-----------|----------------------------|--|
| EXAMPLE 2                   | MATERIAL          | THICKNESS | YOUNG'S<br>MODULUS<br>(Pa) | LINEAR<br>EXPANSION<br>COEFFICIENT<br>(1/°C) |
| TRANSPARENT<br>SUBSTRATE 20 | POLYCARBONATE     | 0.5mm     | 2.41E+09                   | 6.00E−05                                     |
| THIN FILM<br>LAYER 40       | ALUMINUM NITRIDE  | 65nm      | 3.43E+11                   | 5.60E−06                                     |
| PROTECTIVE<br>FILM 50       | UV CURING RESIN 3 | 16μm      | 9.00E+09                   | 5.68E−05                                     |

FIG. 14

